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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,971

02/17/2004

Tadao Hashimoto

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23389

7590

11/25/2005

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EXAMINER

TRINH, SONNY

ART UNIT

PAPER NUMBER

2687

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,971

Applicant(s)

HASHIMOTO, TADAO

Examiner

Sonny TRINH

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/443,691.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Claim Objections

1. **Claims 4-5, 9-10, 14-15** are objected to because of the following informalities:
The word "case" (the word right before the last word of each above mentioned claim) should be changed to "base". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanoue ("Tanoue"; Patent No. 6,041,238) in view of Scott ("Scott"; Patent No. 5,959,980):

Consider **claim 1**. Tanoue teaches a personal handy phone system performing radio connection (columns 2-3, specifically lines 50-55 of column 2, figure 1) using a time division multiple access time division duplex system (column 2 lines 1-33) comprising:

a mobile station including means for performing carrier sensing of a communication frequency designated by a base station and a reception slot (figure 4, carrier sense at transmit timing T3 and carrier sense at receive timing R3, see description in column 4). However, Tanoue does not disclose that the mobile station performs a carrier sensing of a transmission slot prior to transmission of a signal to avoid collision wherein if the transmission is in user, the mobile station requests a different transmission slot assignment and a signal that was already in transit in said transmission slot is not stopped.

In an analogous art, Scott teaches the timing adjustment control for efficient time division duplex communication. With reference to figure 7 and description in columns 13-16) Scott further teaches that the mobile station performs a carrier sensing of a transmission slot prior to transmission of a signal to avoid collision wherein if the transmission is in user, the mobile station requests a different transmission slot assignment and a signal that was already in transit in said transmission slot is not stopped (column 14 lines 23-40).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Tanoue, the carrier sensing for a transmission slot, as taught by Scott, to avoid collision before transmitting by checking for the availability of a transmission slot.

Consider **claim 2**. Scott further teaches the monitoring of the slots for activities in order to start the communication (column 14 lines 23-40).

3. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanoue ("Tanoue"; Patent No. 6,041,238) in view of Scott ("Scott"; Patent No. 5,959,980) and in further view of Maxemchuk ("Maxemchuk"; Patent No. 6,219,346).

Regarding **claim 3**, the combination of Tanoue and Scott discloses the invention, including the means for initiating communication when non use is judged in both carrier sensing as shown in claim 2 above. However, the combination does not explicitly disclose the sensing of the electrical field level as judgment condition. In an analogous art, Maxemchuk discloses the packet switching architecture in cellular radio, furthermore, Maxemchuk further discloses the sensing of the electrical field level as judgment condition ("...Identifying the presence of a collision condition requires that a unit detect the presence of a signal from another unit...", column 6, starting from line 32). Therefore, it would have been obvious for a person skilled in the art, at the time the invention was made to use, within the system of Tanoue and Scott, the sensing of the electrical field level as judgment condition, as taught by Maxemchuk in order to determine whether or not there is other transmission before starting the communication to avoid collision by waiting for in-activities from nearby stations.

4. **Claims 4-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanoue ("Tanoue"; Patent No. 6,041,238) in view of in view of Scott ("Scott"; Patent No. 5,959,980) and in further view of and in further view of Chapman et al. (Chapman; Patent No. 4,775,995).

Regarding **claims 4-5**, the combination of Tanoue and Scott discloses all the limitations as specified in claim 3 (claims 4-5 include all the limitations of claim 3, these

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limitations are therefore rejected for the same reasons as given in the rejection of claim 3 above). However, the combination does not disclose the setting means for modifying and setting the reception field level of claim 4 nor the setting means is provided individually to perform carrier sensing on each of said electric field level.

In an analogous art, Chapman teaches a method to provide an arrangement for adaptively controlling the amount of adjacent channel interference. Chapman further teaches the setting means for modifying and setting the reception field level for the mobile station to adapt to the electrical conditions (column 2 line 46 to column 3 line 22).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Tanoue and Scott, the monitoring and adjusting of the reception field level, as taught by Chapman to adaptively controlling the amount of interference by adjusting the reception field level (taught by Chapman in the cited passage).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claims 6-8 and 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanoue ("Tanoue"; Patent No. 6,041,238) in view of Maxemchuk ("Maxemchuk"; Patent No. 6,219,346).

Consider **claims 6, 11**, Tanoue teaches a personal handy phone system and method performing radio connection (columns 2-3, specifically lines 50-55 of column 2, figure 1) using a time division multiple access time division duplex system (column 2 lines 1-33) comprising:

a mobile station including means for performing carrier sensing of a communication frequency designated by a base station and a reception slot (figure 4, carrier sense at transmit timing T3 and carrier sense at receive timing R3, see description in column 4). However, Tanoue does not disclose that the mobile station performs a carrier sensing of a transmission slot.

In an analogous art, Maxemchuk teaches a packet switching architecture in cellular radio communication systems where the mobile units transmit information in packet format (column 1 line 65 to column 2 line 11). Maxemchuk further teaches that the mobile station performs a carrier sensing of a transmission slot (column 6 lines 16-57).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Tanoue, the carrier sensing for a transmission slot, as taught by Maxemchuk, to avoid collision before transmitting by checking for the availability of a transmission slot.

Consider **claims 7, 12**. Maxemchuk further teaches the monitoring of the slots for activities in order to start the communication (column 6, specifically lines 16-49).

Regarding **claims 8, 13**, the combination of Tanoue and Maxemchuk discloses the invention, including the means for initiating communication when non use is judged in both carrier sensing as shown in claim 2 above. Furthermore, Maxemchuk further discloses the sensing of the electrical field level as judgment condition ("...Identifying the presence of a collision condition requires that a unit detect the presence of a signal from another unit...", column 6, starting from line 32). Therefore, it would have been obvious for a person skilled in the art, at the time the invention was made to use, within the system of Tanoue, the sensing of the electrical field level as judgment condition, as taught by Maxemchuk in order to determine whether or not there is other transmission before starting the communication to avoid collision by waiting for in-activities from nearby stations.

6. **Claims 9-10, 14-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanoue ("Tanoue"; Patent No. 6,041,238) in view of Maxemchuk ("Maxemchuk"; Patent No. 6,219,346) and in further view of Chapman et al. (Chapman; Patent No. 4,775,995).

Regarding **claims 9-10, 14-15**, the combination of Tanoue and Maxemchuk discloses all the limitations as specified in claim 3 (claims 4-5 include all the limitations of claim 3, these limitations are therefore rejected for the same reasons as given in the rejection of claim 3 above). However, the combination does not disclose the setting means for modifying and setting the reception field level of claim 4 nor the setting

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means is provided individually to perform carrier sensing on each of said electric field level.

In an analogous art, Chapman teaches a method to provide an arrangement for adaptively controlling the amount of adjacent channel interference. Chapman further teaches the setting means for modifying and setting the reception field level for the mobile station to adapt to the electrical conditions (column 2 line 46 to column 3 line 22).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Tanoue and Maxemchuk, the monitoring and adjusting of the reception field level, as taught by Chapman to adaptively controlling the amount of interference by adjusting the reception field level (taught by Chapman in the cited passage).

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 571-272-7927. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SONNY TRINH
PRIMARY EXAMINER

11/18/05